Testimony
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CDC Efforts to Develop and Implement an Environmental Health Tracking System

Statement of

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Good morning. I am Dr. Richard Jackson, Director of the National Center for

Environmental Health (NCEH), of the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services. I would like to thank the Senate Health, Education, Labor and Pensions Committee for inviting me here today. I would like to discuss CDC's work to develop and implement an Environmental Health Tracking Program.

There is no doubt that the environment plays an important role in human development and health. Some links between environmental exposures and disease such as asbestos and lung cancer, and lead and impaired cognitive development in children, are well documented. Others, such as a possible link between environmental exposures and such conditions as childhood cancers, birth defects, multiple sclerosis, and Alzheimer's disease are suspected, but still not proven.

In January 2001, the Pew Environmental Health Commission, chaired by former Senator Lowell Weicker, Jr., issued a report entitled *America's Environmental Health Gap: Why the Country Needs a Nationwide Health Tracking Network.* The gap that this report describes is the lack of basic information needed to document or disprove possible links between environmental hazards and chronic diseases. Chronic diseases cause four of every five deaths each year in the United States and have annual health care and lost productivity costs of $325 billion according to the Commission's report. The report also presents a logical and compelling prescription to fill this gap with an integrated environmental health tracking network that can rapidly detect and respond to hazardous conditions and acute

disease outbreaks, including those that terrorists perpetrate. The Pew report also prophetically indicates that the nation's preparedness against biological and chemical terrorism underscores the need for a strong tracking infrastructure that can rapidly detect and respond to environmental threats and disease outbreaks associated with terrorist acts.

CDC and ATSDR work jointly on important environmental public health problems. In response to the Pew report, by August 2001, CDC and ATSDR developed a plan of action for a nationwide health tracking network. This plan, *CDC and ATSDR's Proposed Plan for an Environmental Public Health Tracking Network*, describes a strategy to develop and implement an integrated tracking system; to develop a trained environmental health workforce, particularly at the state and local levels; and to improve collaboration among agencies and organizations with public health and environmental responsibilities.

Congress appropriated $17.5 million in the fiscal year 2002 budget for CDC to begin the implementation of a national environmental health tracking network. These resources will be used to support the development of pilot tracking programs in selected states. To achieve a national tracking system, environmental health capacity and comprehensive tracking programs would need to be developed in all 50 states. The key building blocks necessary for effective tracking programs at the national, state, and local levels include: 1) establishing collaboration and partnerships between public health and environmental agencies and organizations; 2) strengthening state and local capacity in terms of personnel expertise and the latest technology; 3) developing appropriate, timely and complete data;

and 4) ensuring the timely dissemination of data and other tracking information to those responsible for prevention and control programs, to researchers, and to the public.

The goals of environmental health tracking are to: (1) develop a system to collect and link data on environmental hazards and exposures with data on the occurrence of disease; and, (2) analyze and interpret the data in this system for use in hazard mitigation and disease prevention. The critical components of such a system include: hazard tracking—measuring the amount, concentration, and geographic and temporal distribution of toxic chemicals, physical agents, biomechanical stressors, and other factors in the environment; exposure tracking--assessing and measuring human exposure to environmental contaminants, including levels of exposure among population subgroups; and health outcome tracking-- monitoring disease events and trends in health risk behaviors within populations over time through tracking systems such as vital statistics, health surveys, and disease registries.

This integrated tracking system will allow on-going monitoring and dissemination of information on levels of environmental contaminants and trends in disease occurrence, facilitate research on the relationship between environmental factors and disease, and measure the impact of regulatory and prevention strategies. Disseminating information, with appropriate privacy safeguards, to stakeholders, including public health and environmental officials, policy makers, health care providers, and the public is essential. With this information, federal, state, and local public health and environmental agencies

and their numerous partners in academic institutions, the private health care sector, and interest groups, will be better prepared to develop and evaluate effective public health actions to prevent or control chronic and acute diseases that are linked to hazards in the environment and, if possible, remove these hazards from the environment. With this information, health care providers can provide better care and targeted preventive services. Further, the public will have a better understanding of health trends and environmental exposures in their communities and what actions they as individuals, or collectively as a community, should take to improve their health.

The leukemia cluster among young children currently under investigation in Fallon, Nevada, as well as historical worker and community exposures to tremolite asbestos in Libby, Montana, highlight the need to strengthen the nation's ability to rapidly detect and respond to disease clusters, disease outbreaks, and related environmental hazards and exposures. One objective for linking data on hazards, exposures, and health outcomes is to assist public health and environmental agencies in identifying potential problems in a timely manner so that prompt action can be taken to mitigate hazards, reduce the potential for exposure, and prevent disease. Over the past decade, CDC birth defects surveillance data showed an increase in reported cases of hypospadius which was suspected of being linked to endocrine disrupters, but evidence of exposure was not available.

The recent World Trade Center (WTC) disaster also illustrates the value of ongoing and integrated hazard, exposure, and disease tracking data. Site workers and residents are

concerned about health effects from exposures to various pollutants as a result of the towers' collapse and subsequent rescue and clean-up efforts. CDC's Environmental Health Laboratory has evaluated blood and urine samples from rescue workers at the WTC for exposure to toxic substances. Since the second week after 9/11/01, CDC has measured hundreds of samples to test for hazardous exposures to workers engaged in rescue and recovery, and has worked to advise the New York City Department of Health, the Fire Department of New York, and others to establish forms of worker monitoring that could provide the basis for a registry for WTC workers. CDC, ATSDR, the Environmental Protection Agency, the New York City Department of Health, and others continue to work in tandem to identify and respond to any increases in asthma and other respiratory illnesses that may be caused by airborne pollutants associated with this disaster. Linkage of hazard, exposure, and health outcome data can provide a comprehensive picture of the current health status and future health risks for the community and workers.

CDC and ATSDR have extensive experience with disease tracking and disease and exposure registries. For example, CDC funds 45 states, 3 territories, and the District of Columbia in its National Program of Cancer Registries, 6 states for possible estuary-associated syndrome surveillance associated with Pfiesteria and other algae exposure, 35 states for birth defects surveillance and data usage activities, and 37 asthma surveillance projects. Additionally, CDC is implementing a standards-based approach called the National Electronic Disease Surveillance System (NEDSS), that enables health data to be

obtained and analyzed from diverse sources and in a secure environment by state and local public health agencies.

CDC's childhood lead poisoning prevention program is a classic example of how the linkages of hazard and exposure data dramatically improves the public's health. Since the mid-1970s, CDC has compiled lead hazard and human exposure data. These data are being used by CDC, state and local public health agencies, the Department of Housing and Urban Development, and others to more effectively direct public health efforts towards identifying substantial numbers of high-risk children and houses that contain lead paint hazards, conducting blood lead screening programs, planning and implementing abatement programs, and educating the public about the lead hazards that still exist. These hazards include the exposure of children to industrial sources of lead that occurs when parents inadvertently bring contaminated clothing into the home. CDC funds 35 States to track the problem of adult lead exposure.

How, then, are we developing the Environmental Health Tracking Program? Using *CDC and ATSDR's Proposed Plan for an Environmental Public Health Tracking Network* as a base, we have convened four workgroups comprised of over 60 top scientists and policy professionals from within CDC and ATSDR and from numerous organizations, including state and local public health and environmental agencies, EPA and other relevant federal agencies, academia, interest groups, the private sector, and others to assist us with the shaping of the Environmental Health Tracking Program. The four workgroups are each

responsible for providing recommendations on one of the following categories: (1) organization and management; (2) data technology and tracking methodology, (3) tracking system inventory and needs assessment; and, (4) translation, policy, and public health action. Recommendations from the workgroups will be forthcoming later this month and will be used to guide our future actions. These actions will include providing financial and technical assistance to a number of state agencies to implement pilot programs to develop improved tracking methods. CDC will also work with accredited schools of public health for the establishment, maintenance, and operation of centers for research and demonstration with respect to chronic diseases and related environmental factors and exposures. Continued collaboration and communications with our partners in this endeavor also is critical. For example, CDC and ATSDR have worked with EPA for a number of years and we are expanding this crucial partnership as we establish the Environmental Health Tracking Program.

In conclusion, the Environmental Health Tracking Program is a high priority for CDC and ATSDR and our partners because it provides a strategic opportunity to address some of the most challenging public health problems facing local, state, and national public health and environmental leaders. Developing a tracking system is a tremendous challenge, and its successful implementation will provide information regarding the possible relationships between environmental exposures and chronic and other diseases that can lead to interventions to reduce the burden of these illnesses on the American population. CDC and ATSDR and our partners have an historic and unique opportunity to implement a

program that will monitor and safeguard the health of all people living in the United States.

Thank you for the opportunity to testify before you today. We would be happy to answer any questions that you might have.